

REMARKS

Claims 16-21 and 23-29 are pending in this application, of which claims 16, 19-20 and 23-27 have been amended. Claims 22 and 30 have been canceled. No new claims have been added.

The Examiner has rejected claims 22-26 under 35 U.S.C. §112, second paragraph, as indefinite.

Claim 22 has been canceled and the 35 U.S.C. §112, second paragraph, rejection should be withdrawn in regard to claims 23-26.

The claims stand rejected as follows:

1. Claims 16-19 and 27-28 under 35 U.S.C. §102(b) as anticipated by U.S. Patent 4,859,378 to Wolcott (hereinafter "Wolcott");
2. Claims 20 and 22-26 under 35 U.S.C. §102(b) as anticipated by JP2001-171008 to Otani et al. (hereinafter "Otani et al.");
3. Claim 21 under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,902,426 to Daly (hereinafter "Daly");
4. Claim 29 under 35 U.S.C. §103(a) as unpatentable over Otani et al. in view of Daly.

Applicants respectfully traverse these rejections.

Wolcott discloses a method of ultrasonically assembling workpieces by providing of a first thermoplastic workpiece having an upstanding stud, an apertured second workpiece juxtaposed on the first workpiece so that the stud protrudes through the aperture of the first workpiece, and a horn applying ultrasonic energy to the upstanding, free end of the stud by forced contact between the stud end and the horn.

Wolcott fails to disclose a concave portion in a bottom surface of the resonator, as shown in all embodiments of the instant application.

Accordingly, claims 16, 19-20 and 27 have been amended to recite this distinction.

Otani has been cited for disclosing a protrusion extending from the bottom surface of resonator 50.

Otani fails to disclose that the protruding portion extends beyond a bottom surface which is outside the concave portion of the resonator, as in the present invention.

Accordingly, claim 20 has been amended to recite this distinction.

The dependency of claims 23-26 has been changed from claim 22 to claim 20 because claim 22 is directed to the same structural limitations as is claim 20 (because the Examiner does not view the “heating target” recited in claim 22 as part of the “ultrasonic welding structure” being claimed).

Daly relates to a process for manufacturing an air flow valve and does not appear to disclose ultrasonic welding, as urged by the Examiner. Although ultrasonic welding is mentioned in column 4, lines 22-23, piston 22 cannot be considered to be an “ultrasonic resonator,” as urged by the Examiner.

Thus, the 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) rejections of the claims 16-21 and 23-29, as amended, should be withdrawn.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

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Respectfully submitted,

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